

REMARKS

Applicant thanks the Examiner for the detailed Office Action dated November 02, 2007. Applicant respectfully requests reconsideration of the present application in view of the preceding amendments and the reasons that follow.

Objection to the Drawings

The drawings have been amended in the manner suggested by the Examiner. More precisely, Figure 3 of Sheet 1 has been amended to remove reference numeral 12 and the bracket associated with reference numeral 12. It is therefore requested that the objection to the drawings be withdrawn.

Objection to the Specification

The specification has been amended in the manner suggested by the Examiner. More precisely, a new abstract has been presented on a separate sheet, the abbreviation LVDT has been defined, and the trademarks have been capitalized. It is therefore requested that the objections to the specification be withdrawn.

Claim Rejections under 35 U.S.C. § 112

Independent claim 1 has been amended to provide antecedent basis for the limitation “the first side of the substrate” as suggested by the Examiner. It is therefore requested that the 35 U.S.C. 112 rejection be withdrawn.

Claim Rejections under 35 U.S.C. § 102

Law of Anticipation

The PTO acknowledges the legal standard that a “claim is anticipated only if each and every element as set for the in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2

USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, the “identical invention must be shown in as complete detail as is contained in the ... claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). See MPEP § 2131. In general, in deciding the issue of anticipation, the trier of fact must identify the elements of the claim at issue, determine their meaning in light of the specification, and identify corresponding elements disclosed in the allegedly anticipating reference.

Applicant's Amended Claim 1

Applicant's claims 1, 2 and 3 were rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent number 6,341,527 (Ishikura et al.). Applicant has amended claim 1 to include the limitations of claim 2, and respectfully traverses the rejection as it applies to the amended claim.

Applying the legal standard for anticipation outlined hereinabove, it is respectfully submitted that Ishikura et al. does not identically disclose the combination of elements recited in Applicant's amended claim 1. For example, Ishikura et al. does not disclose “a conductive standoff sandwiched between the substrate and the second electrode **for maintaining the second electrode in spaced relation to the first electrode**”.

On page 5 of the Office Action, the Examiner provides that extraction electrodes 104 of the Ishikura et al. reference disclose the “conductive standoff” of Applicant's amended claim 1. It is respectfully suggested that there is no support in the Ishikura et al. reference for the interpretation that the extraction electrodes 104 are adapted to **maintain the second electrode in spaced relation to the first electrode**. Column 1, Lines 28-29 provide that “The upper wafer 103 is bonded to the periphery of the lower wafer 102”. This relationship is also clearly depicted in Figure 9 of the Ishikura et al. reference. The stationary electrode 105 and the moveable electrode 107 of the Ishikura et al. reference are respectively secured to the lower wafer 102 and the upper wafer 103 such that the spaced relation between the Ishikura et al. electrodes 105 and 107 is maintained by the bonded wafers 102 and 103. In other words, it is the process of bonding the upper wafer 103 and the lower wafer 102 that maintains the moveable electrode 107 in spaced relation to the stationary electrode 105, not the extraction electrodes 104 as suggested by the examiner.

Additional support for the position that the extraction electrodes 104 of Ishikura et al. are not adapted to **maintain the second electrode in spaced relation to the first electrode** can be found at column 2, lines 19-25 which provides: "After that, the upper wafer 103 is adhered to the lower wafer 102, and the upper and lower wafers 103 and 102 are directly bonded to each other in an atmosphere with a temperature condition of 400° C. to 1,300° C. After bonding, molten solder 104a such as Sn-Ag solder is filled in the through holes 110 in the lower wafer 102 to form the extraction electrodes 104." This passage shows that the wafers 102 and 103 of the Ishikura et al. reference are maintained in spaced relation by the bonding process before the extraction electrodes 104 are even formed.

It is also suggested that Ishikura et al. does not disclose a "conductive standoff **electrically coupled to the second electrode and electrically isolated from the first electrode**" as required by Applicant's amended claim 1. It can be seen with respect to Figures 8-9 that the Ishikura et al. reference discloses a plurality of extraction electrodes 104. One of the extraction electrodes 104 is coupled with the movable electrode 107 (via pad 108) and isolated from the stationary electrode 105, and another of the extraction electrodes 104 is coupled with the stationary electrode 105 (via pad 106) and isolated from the movable electrode 107. It therefore cannot be said that the extraction electrodes 104 of the Ishikura et al. reference collectively disclose a conductive standoff **electrically coupled to the second electrode and electrically isolated from the first electrode** as required by Applicant's amended claim 1.

It should further be appreciated that an interpretation of the Ishikura et al. reference relying on a single extraction electrode 104 to disclose Applicant's conductive standoff would be inconsistent with the Examiner's contention that the single extraction electrode 104 is also adapted for **maintaining the second electrode in spaced relation to the first electrode**. In other words, a single extraction electrode 104 configured in the manner depicted in Figure 9 of the Ishikura et al. reference and disposed at one end of the electrodes 105, 107 (as shown in Figure 9) cannot effectively **maintain the second electrode in spaced relation to the first electrode** as required by Applicant's amended claim 1.

It has been shown that Ishikura et al. does not include every element as set forth in Applicant's amended claim 1, which is therefore patentable. As claim 3 depends upon claim 1, it is also patentable. Applicant's therefore respectfully request the withdrawal of the rejection of claims 1 and 3 under 35 U.S.C. § 102(e).

Applicant's Amended Claim 4

Applicant's wish to express his appreciation for the Examiner's indication that claim 4 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 4 has been amended in the manner suggested by the Examiner. It is therefore respectfully requested that the Examiner withdrawal the objection to claim 4 and the rejections to claims 5-10 that depend upon claim 4.

Respectfully submitted,



Daniel Guiser
Registration No. 52,514

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CORRESPONDENCE CONTACT INFORMATION:

Daniel Guiser
G.E. Healthcare
3000 N. Grandview Blvd., Mailstop SN-477
Waukesha, WI 53188 - 1696
Telephone Number: (262) 548-2665